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CHARLES VANCOUVER PIPER AND THE FLORA OF THE PACIFIC NORTHWEST.

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We who knew Charles Vancouver Piper recognize his manifold interests, his breadth of training and vision, his ability to grasp the fundamentals of a problem and his practical insight into botanical and agronomic problems. Those who knew him in his later years only remember him chiefly for his brilliant leadership in the agronomic field.

But Professor Piper's older friends think of him as a naturalist, especially as a botanical explorer and pioneer. Aptly was he named Vancouver. What George Vancouver did for the geography of Puget Sound and the Pacific Northwest and more, Piper did for the botany.

Professor Piper's studies of the flora of the Pacific Northwest may be divided into three periods: (1) the years 1883 to 1892 when he resided at Seattle; (2) the years 1892 to 1903 during which he was Professor of Botany and Zoology at the State College of Washington at Pullman; and (3) the years 1903 to 1926 while he was connected with the United States Department of Agriculture at Washington, D. C.

Professor Piper graduated from the University of Washington in 1885 and later secured his master's degree from the same institution. His teacher in the biological sciences was Professor O. B. Johnson. Later he studied at Harvard University. Even in his student days he had become a collector of plants. Specimens are in herbaria gathered by him as early as June, 1883. He became a member of the Young Naturalists Club of Seattle. After his graduation he helped his father in his business but devoted much time to botanical exploration. In this

period his explorations reached many points in the Puget Sound Region and in the lofty mountains which surround it. In 1885 he was a member of the third party ever recorded as having climbed to the summit of Mount Rainier. The party consisted of eight men, was headed by Major E. S. Ingraham and included the naturalist, John Muir. The first reference to Professor Piper's work which I find in literature is in an article entitled "A Mountain Meadow" and was published in Garden and Forest in 1889. The article is a description of the wonderful natural flower gardens in Paradise Valley on Mount Rainier. In 1891 in the same journal there appeared over his signature an article entitled "Conifers on Mount Rainier." By this time he had already begun the correspondence and submission of specimens to eastern specialists which helped him so much in developing his knowledge of the taxonomy of the plants of the northwest.

Mount Rainier was always one of his favorite fields of exploration. He explored the mountain botanically in 1888, again in 1889, and again in 1895. In 1901, in the mountaineering magazine, Mazama, he published a critical list of the plants of this lofty snow peak.

In 1890 and again in 1895 he explored the Olympic Mountains, the range of snow-capped peaks which forms the west border of the Puget Sound region.

In 1892, Professor Piper was called to the position of Professor of Botany and Zoology at the State College of Washington. The institution was young; there were but few teachers and few students. He began an energetic survey of eastern and central Washington and northern Idaho, now accessible to him. He scoured the bunch grass plains and at every opportunity visited the nearby Thatuna Hills of northern Idaho and the Snake River valley to the southward. He gathered around him a group of students whom he interested in the flora of the region. He established connection with such local collectors as W. C. Cusick, R. M. Horner, W. N. Suksdorf, and Kirk Whited, who sent him many plants for determination. He built up at the State College a splendid herbarium representing the flora of the Pacific Northwest. He undertook a catalogue of the flora of the State of Washington. He spent the school year 1899–1900 at Harvard University. During this year he

completed most of the work on his catalogue which was published as volume 11 of the Contributions of the United States National Herbarium.

Soon after Professor Piper's return from Harvard in 1900 the preparation of the Flora of the Palouse Region was begun. This little volume was the forerunner of the later published Flora of Southeastern Washington and adjacent Idaho and the Flora of the Northwest Coast.

In 1896 Professor Piper explored the Blue Mountains in southeastern Washington and northeastern Oregon, penetrating to the Powder River and the Wallowa Mountains. In 1902 with two friends and a helper he made a five weeks pack horse trip over the Lolo trail into the Bitterroot Mountains of Idaho, following the path and studying the work of the Lewis and Clarke expedition.

With Professor Piper's removal to Washington, D. C., his interest in the flora of the Pacific Northwest did not waver. Rather, his field broadened. His forage crop problems frequently led him through the region. He botanized in Alaska while he studied its grasses and forage plants. During vacations he camped on Priest Lake in northern Idaho, where he found a most interesting flora. He penetrated the fascinating Siskiyou Mountains in southwestern Oregon. He established more than friendly relations with the students of the flora of Vancouver Island and British Columbia. He stimulated others to visit the regions he himself could not reach. All this continued almost to the day of his death. It made him for all time the dominant factor in the Systematic Botany of the Pacific Northwest.

In his taxonomic work, Professor Piper was sane, critical and a fearless student. He was conservative in his ideas but not to an extreme. He believed that species were human concepts and that names were conveniences. Rules of nomenclature were acceptable in so far as they were useful. He described and published over a hundred new species and varieties of plants but there was to him no sanctity in his own species. If new material or a new point of view or a suggestion from another botanist called in question one of his species no one could be more critical of it than he.

Professor Piper's personal herbarium and his collection of

taxonomic books, separates, and notes go to the State College of Washington to augment his collection already there and make it a splendid monument. Many of his types are in the National Herbarium. Duplicate sets of many of his collections are in the larger eastern herbaria. During the last few weeks of his life he arranged for the preparation of a list of additions and corrections to his Catalogue.

The genus Piperia of Rydberg (Bull. Torr. Bot. Club 28: 269. 1901) was named after him. A considerable number of species also bear his name.

Professor Piper was not primarily a laboratory and herbarium man. He was a field botanist. He knew and loved plants as they grew out of doors. A surprisingly large number of the plants cited in the Flora of the State of Washington were collected by himself and he had explored personally perhaps a hundred localities in all parts of the State in securing them.

This intimate knowledge of the living plant expressed itself in his writings and in his discussions of plants with his fellows.

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